

Fig. 1a--PDMS patch electrode & associated components, side view

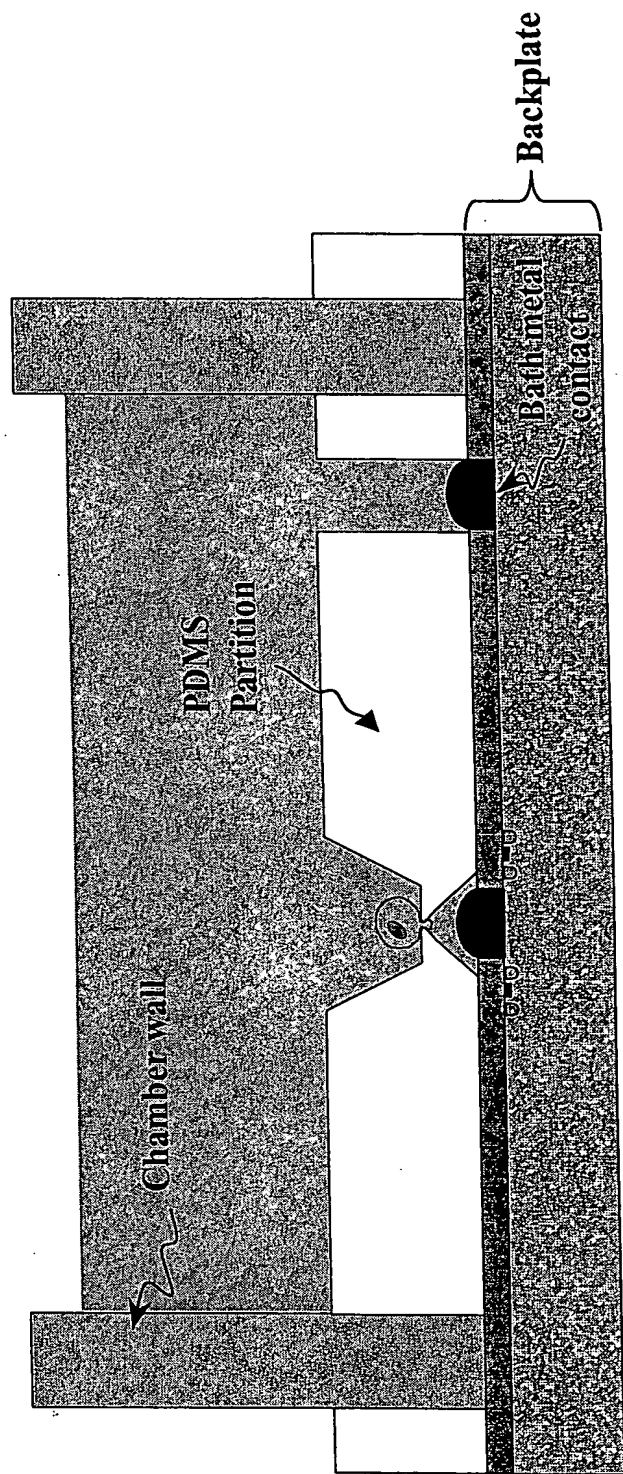


Fig. 1b--PDMS patch electrode, side view

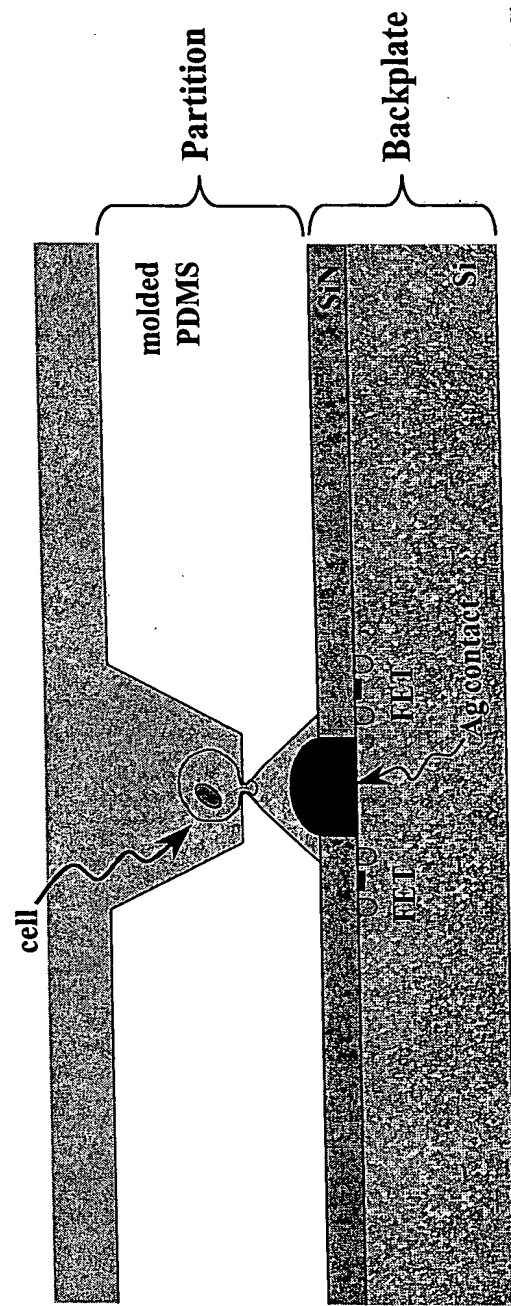


Fig. 2--Close-up of cell contact point to partition

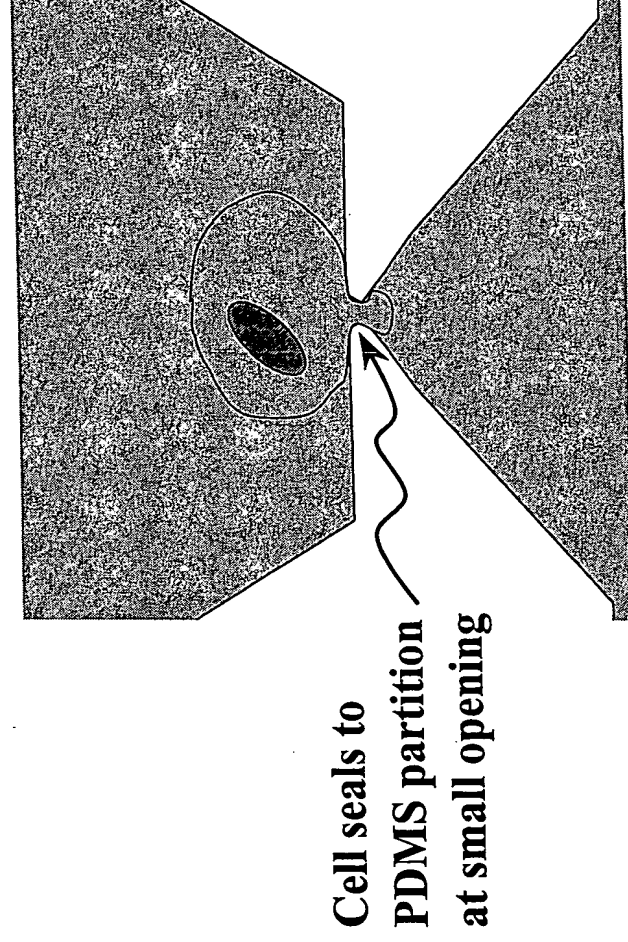


Fig. 3--Alternative PDMS patch electrode, side view

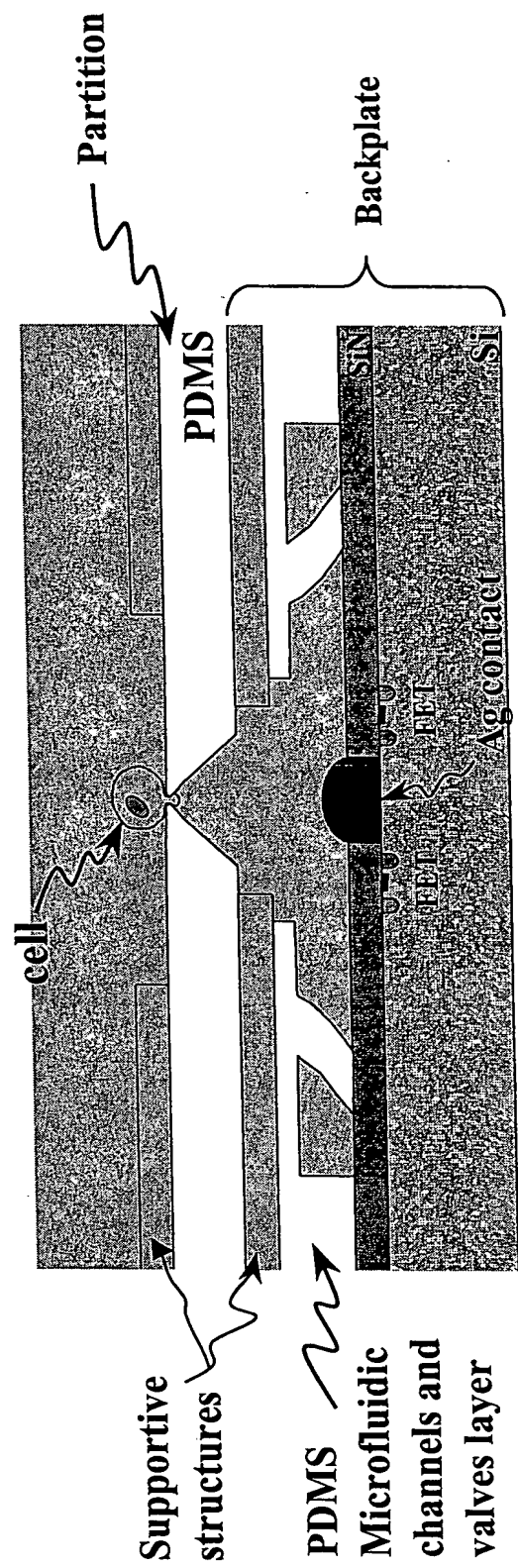


Fig. 4--Top view of a 96 well plate, 16 patch electrodes/well

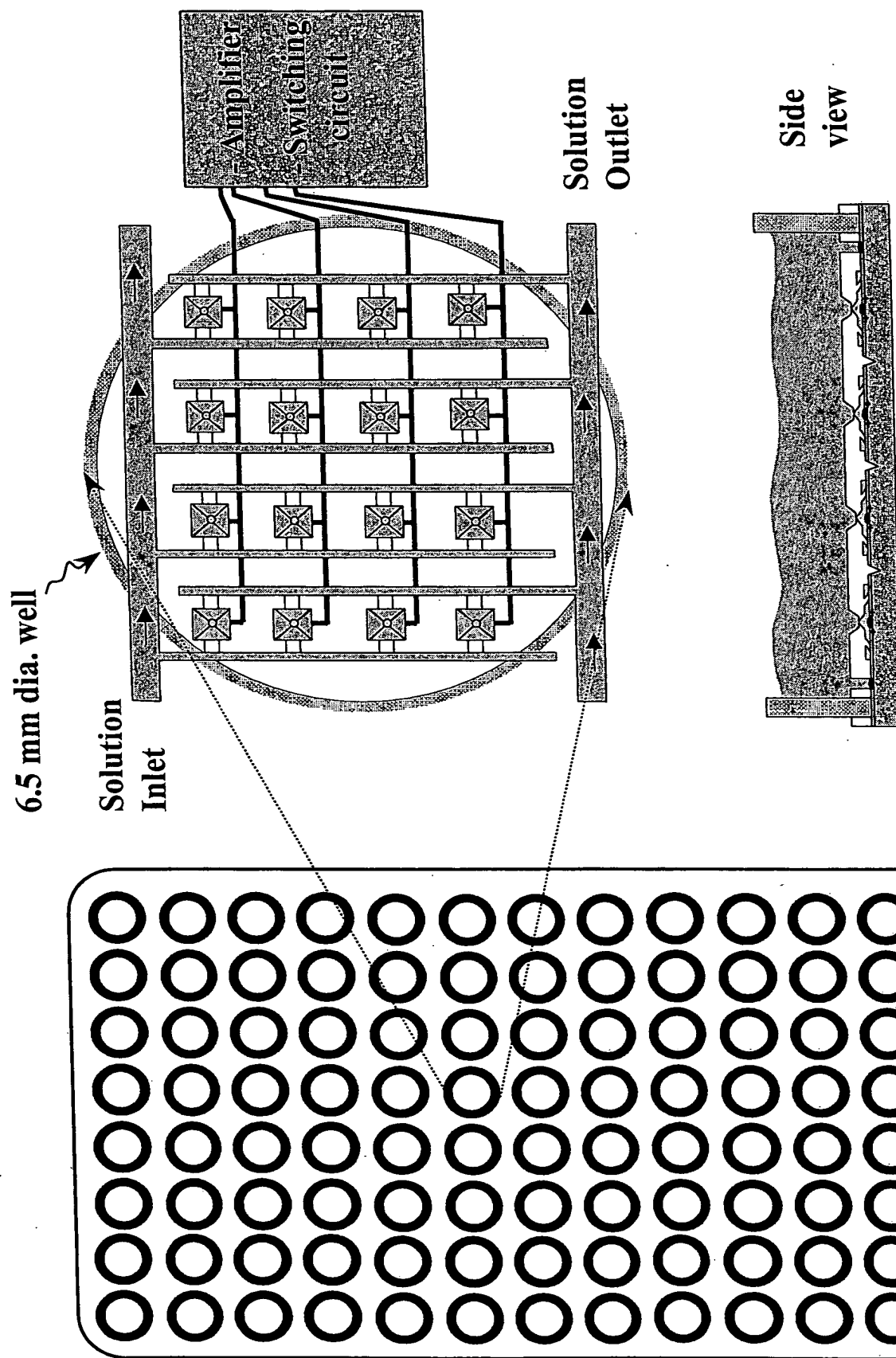


Fig. 5--Side view of patch electrode array in a single well

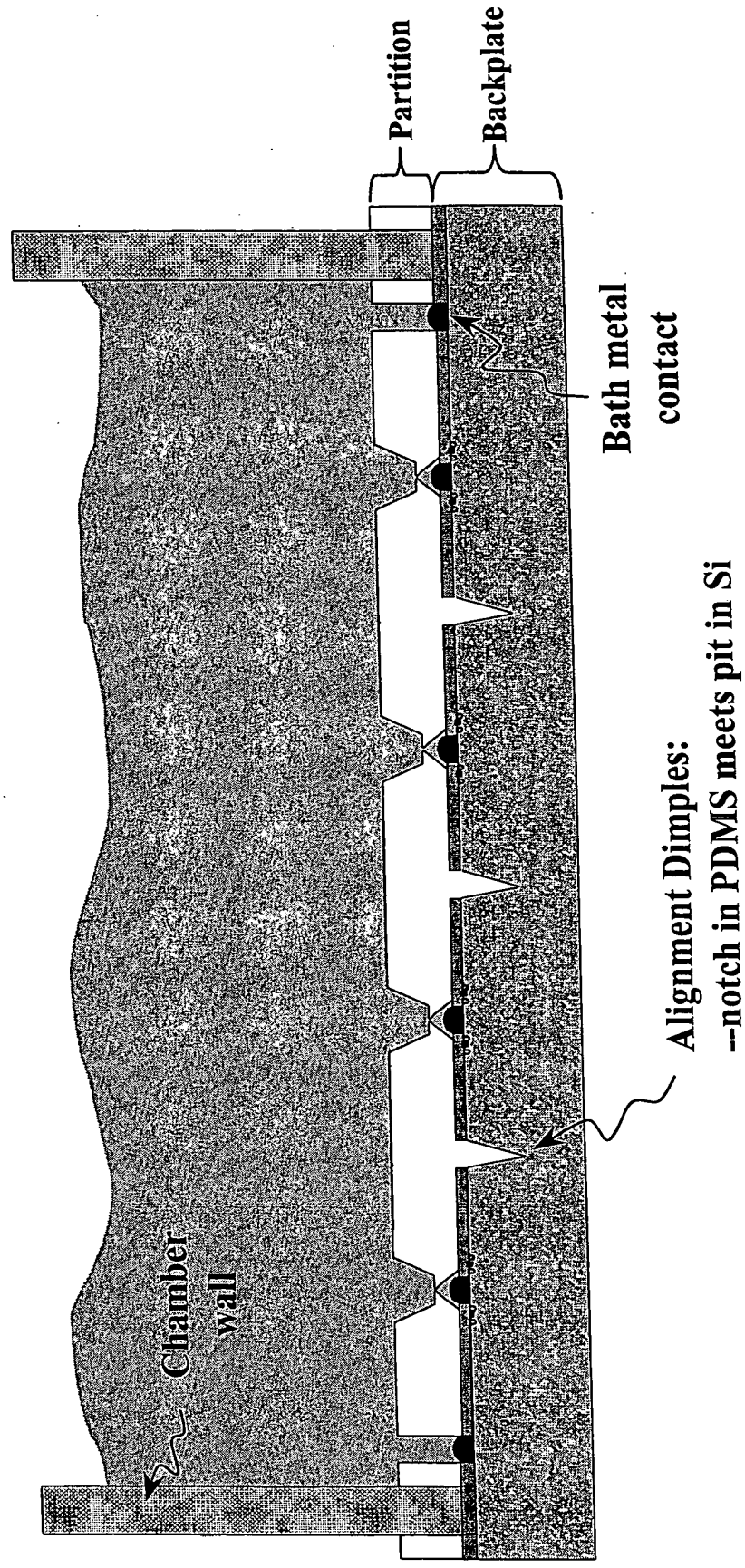


Fig. 6--Alternative patch electrode array, including microfluidic solution exchange valves

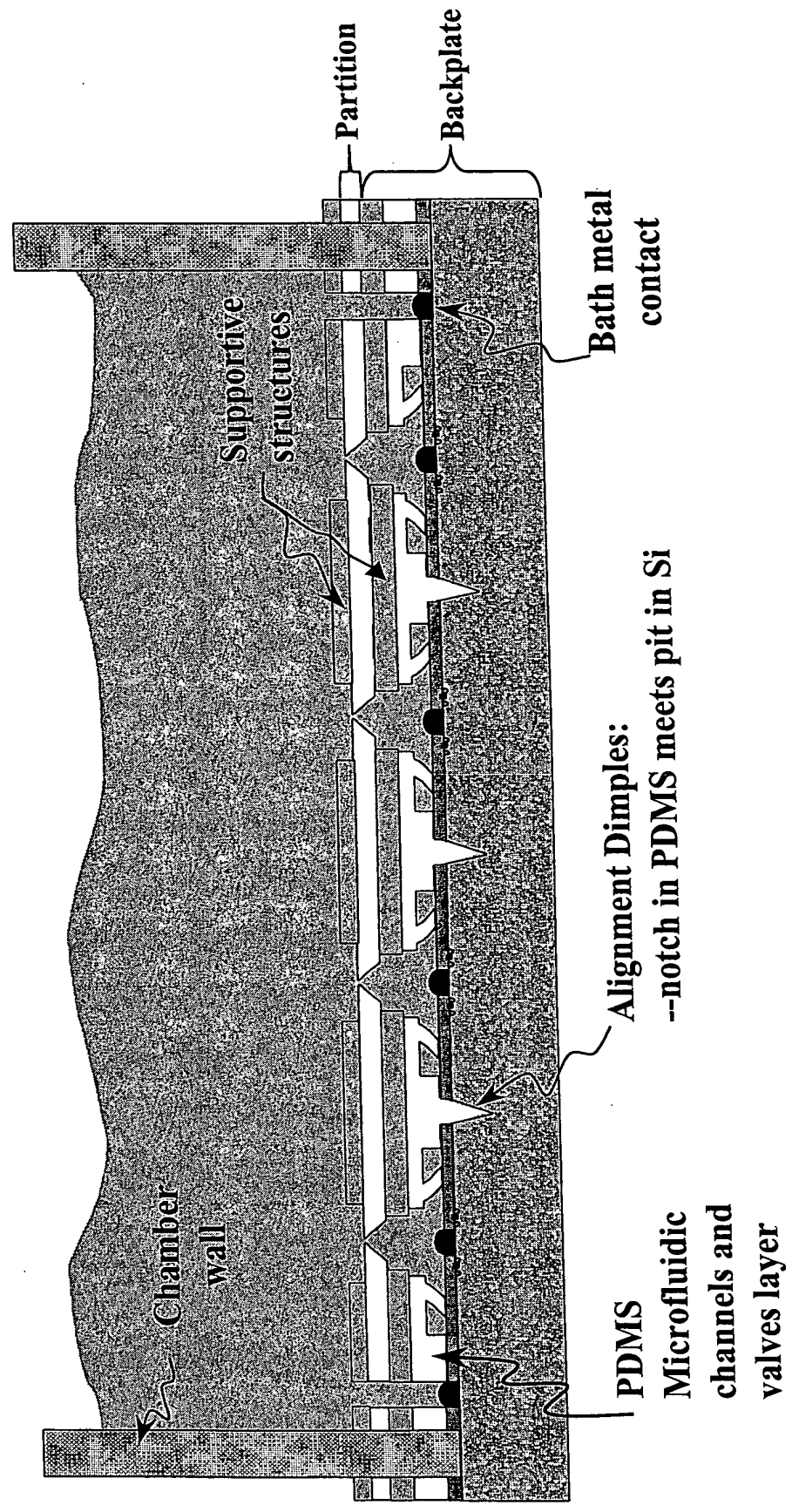


Fig. 7--Electronic circuitry for a single well

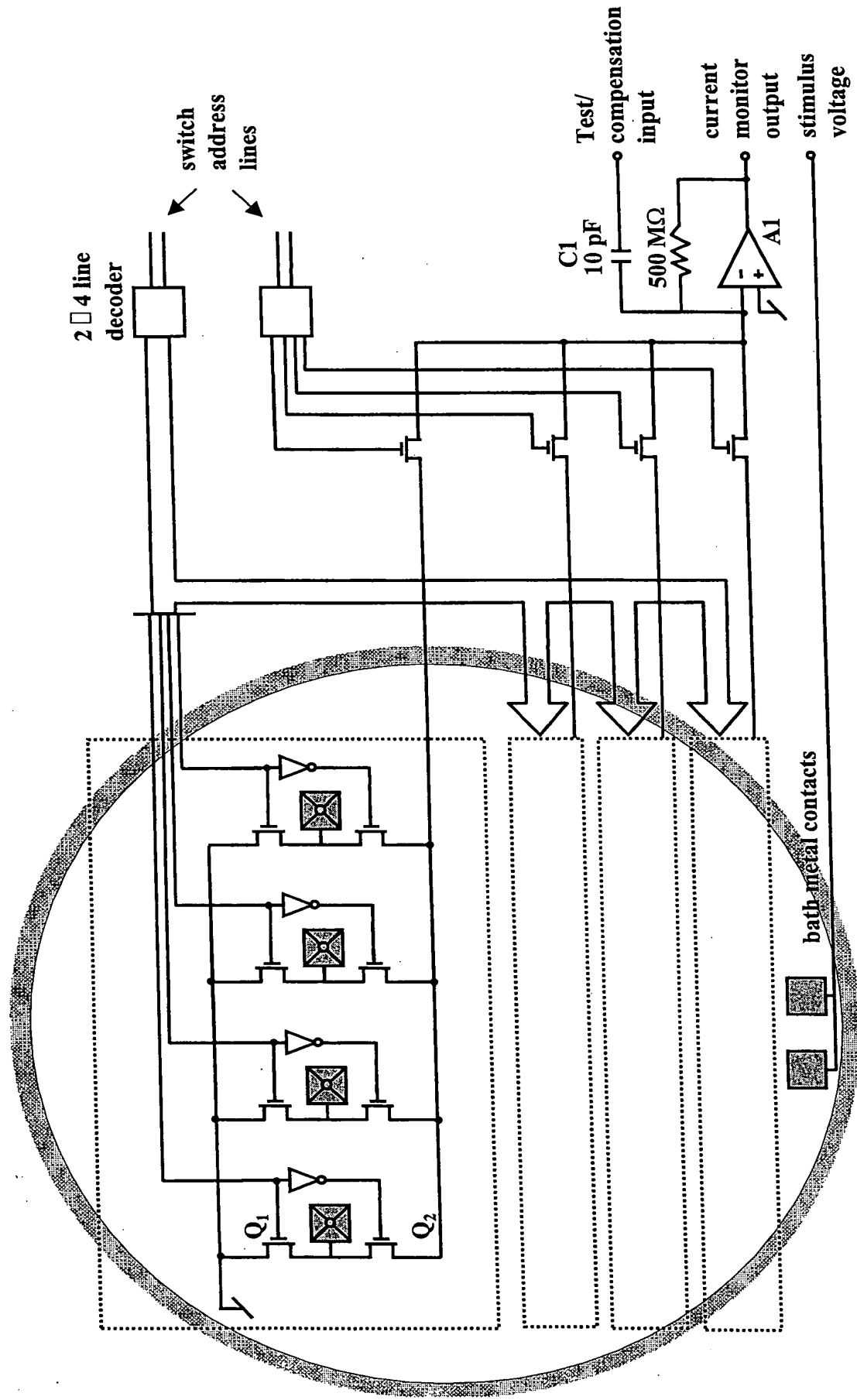


Fig. 8--Shaker K⁺ channel current recording from *Xenopus* oocyte sealed to planar PDMS patch electrode

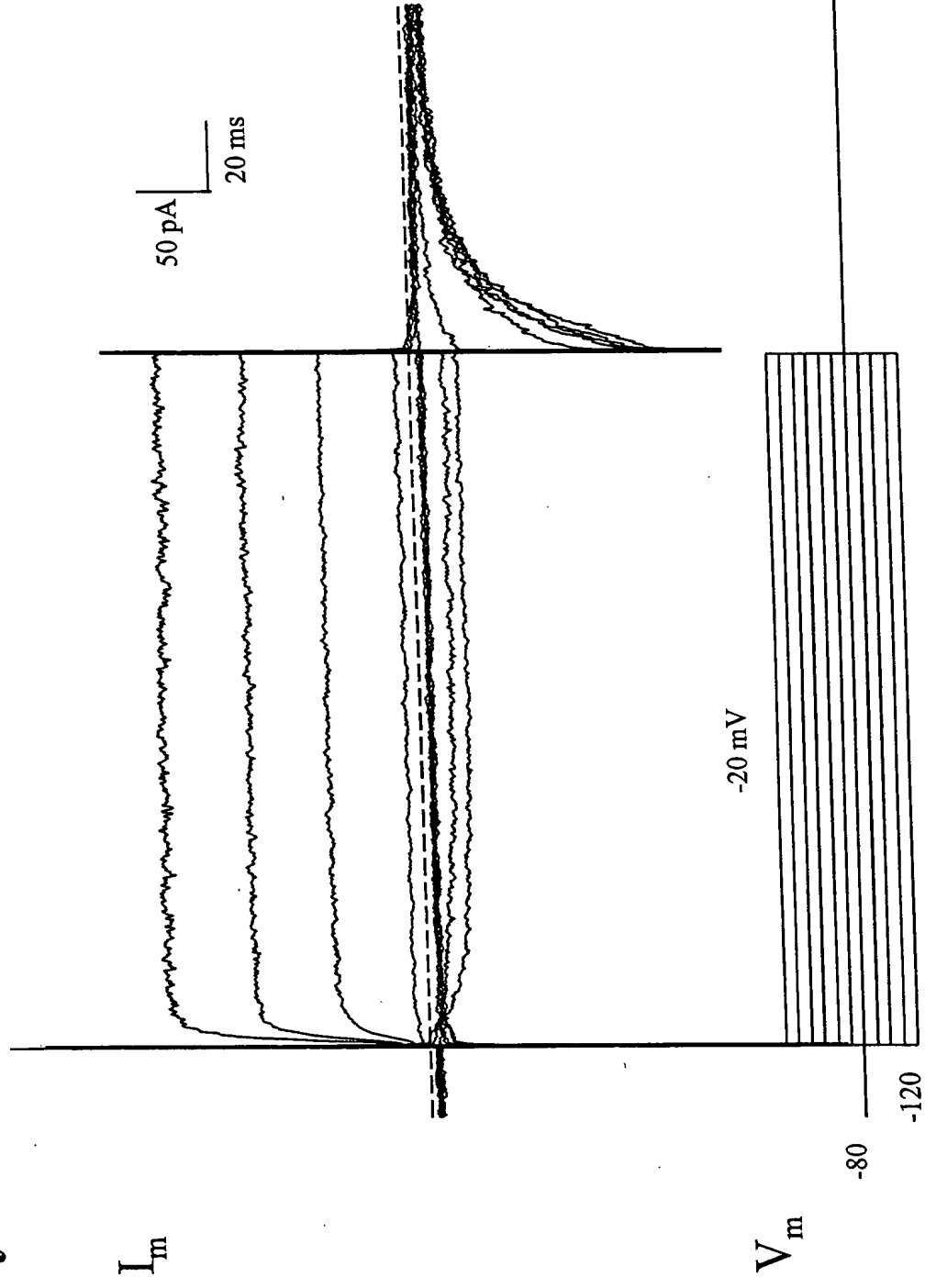


Fig. 9—Process flow chart for micromolding PDMS electrode partition from a micromachined Si master

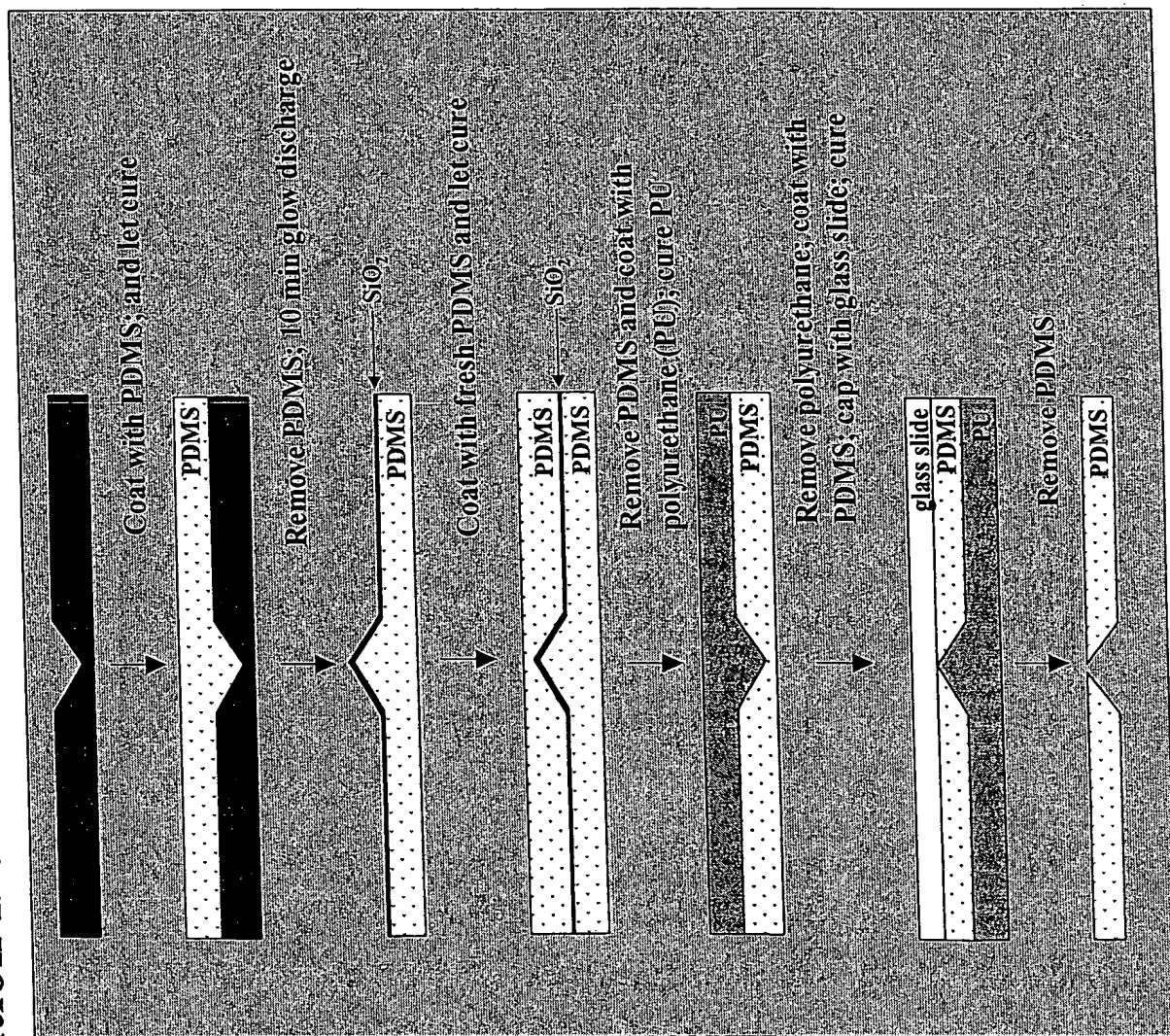
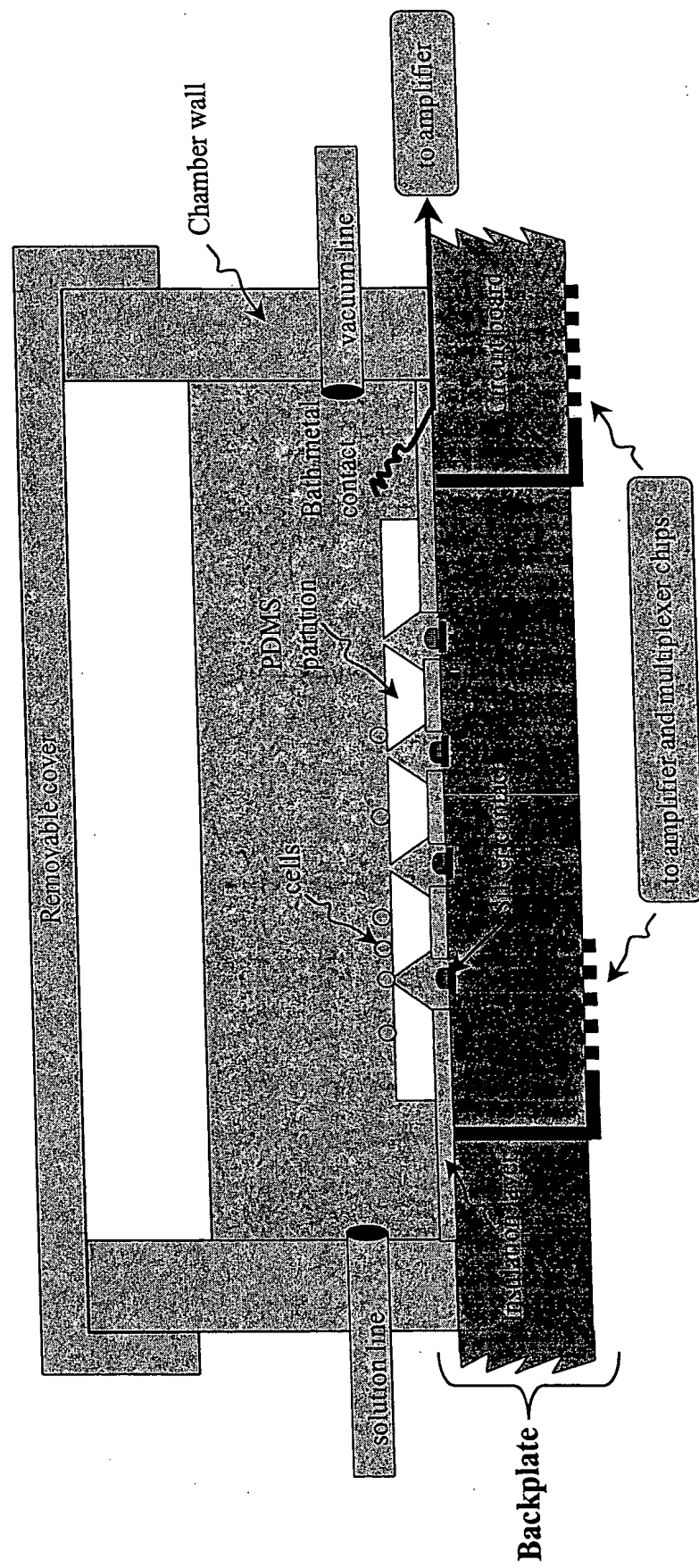


Fig. 10—PDMS patch electrode array system



**Fig. 11—PDMS patch electrode array system,
including fluidic layer**

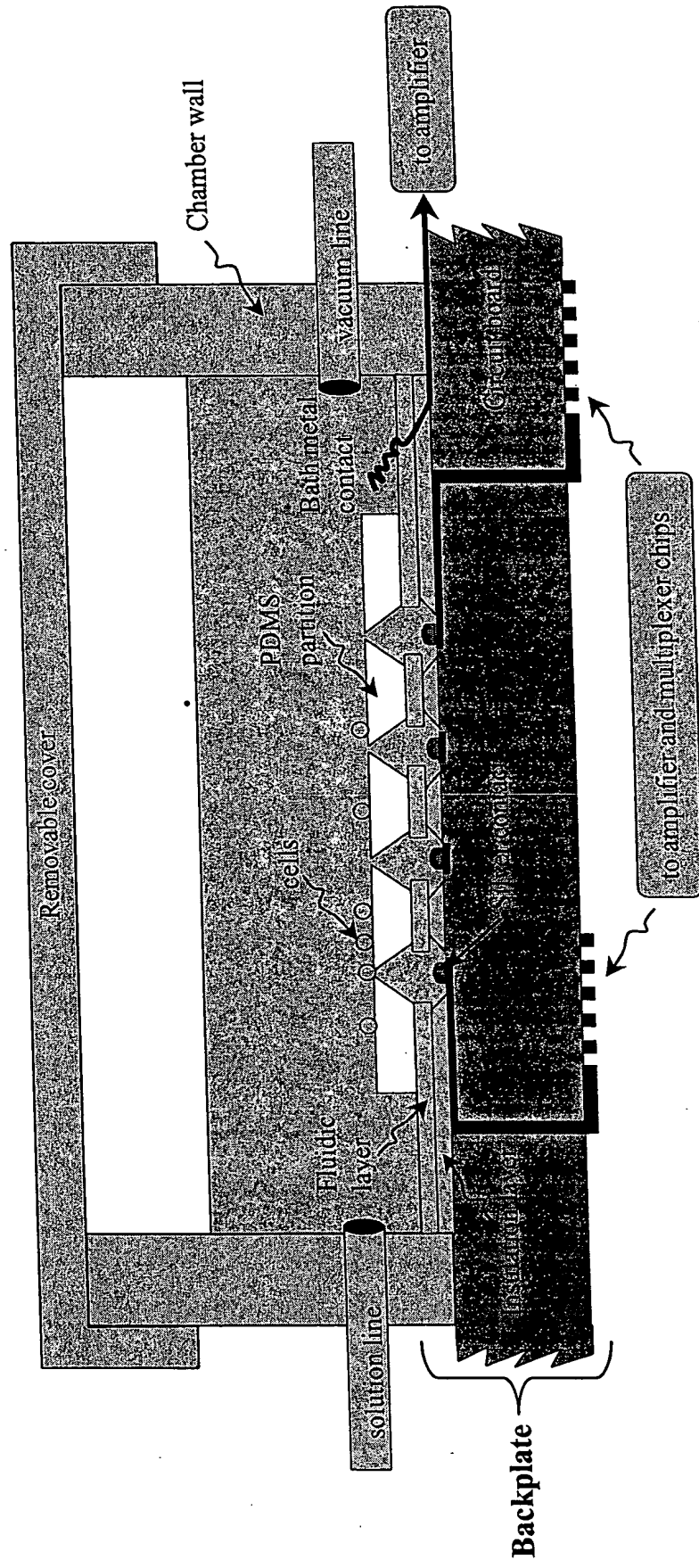


FIGURE 12

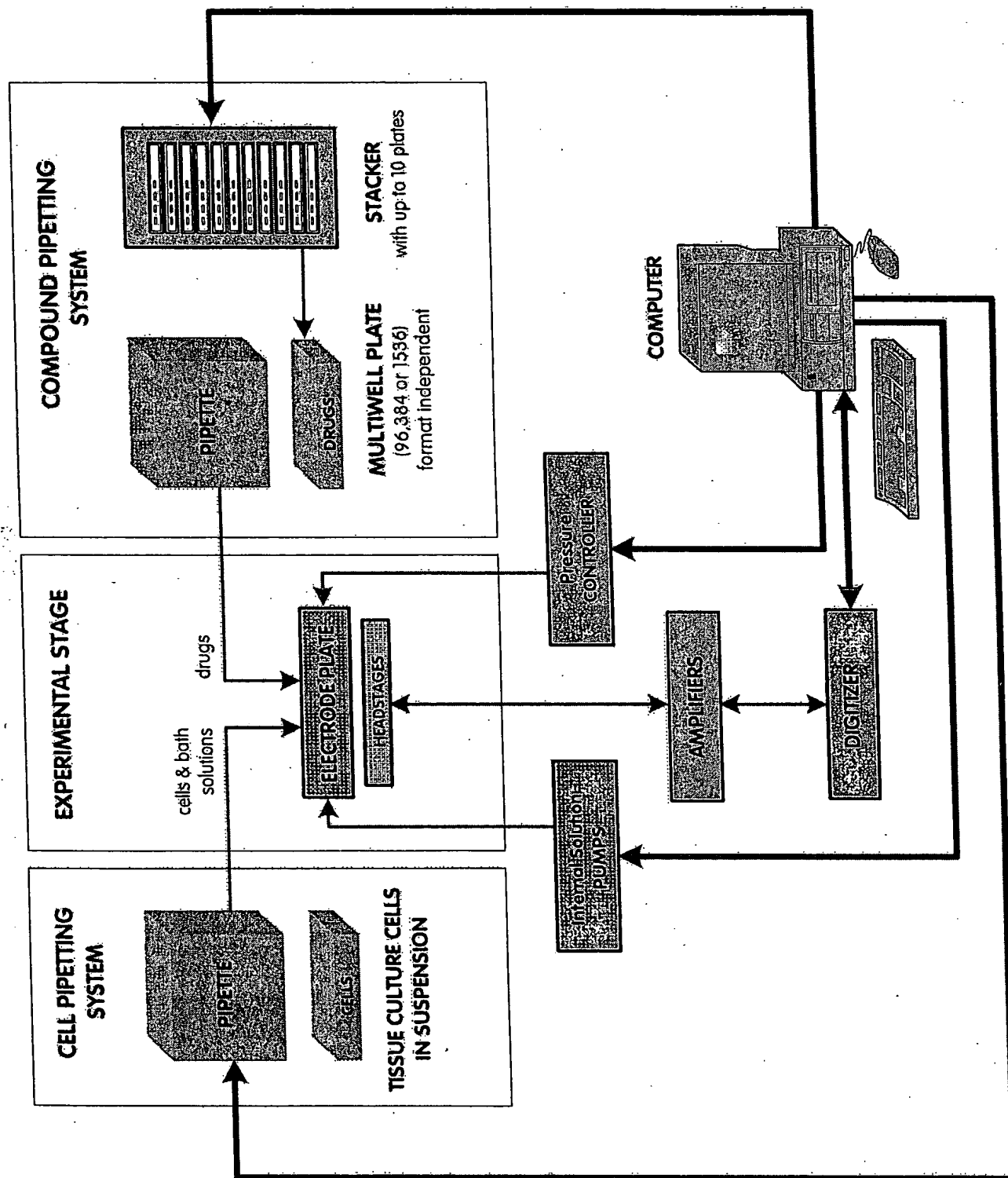
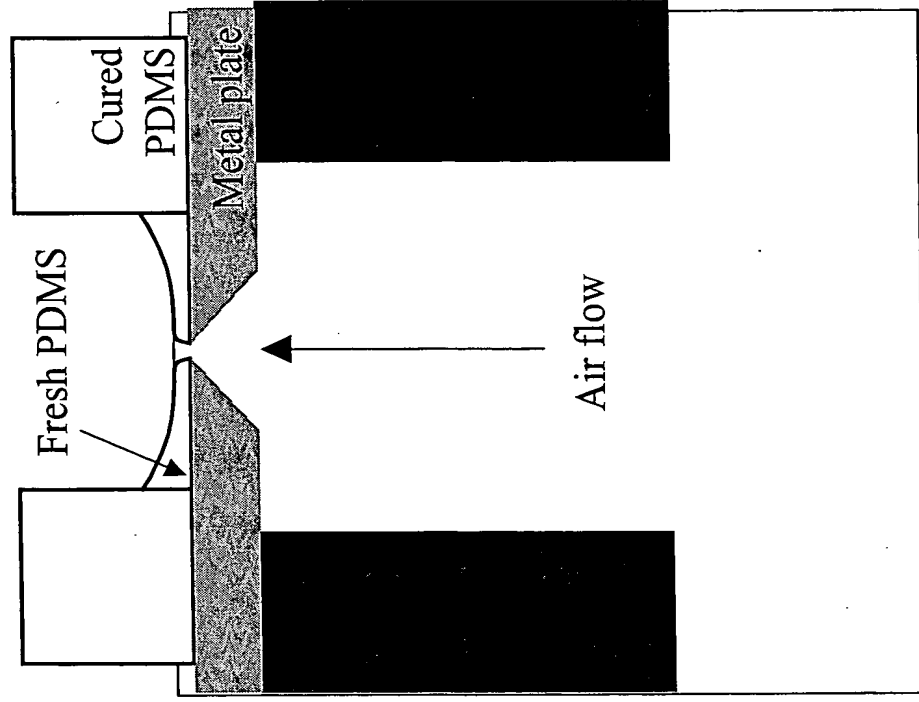


Figure 13



⊠ Not drawn to scale!

Figure 14

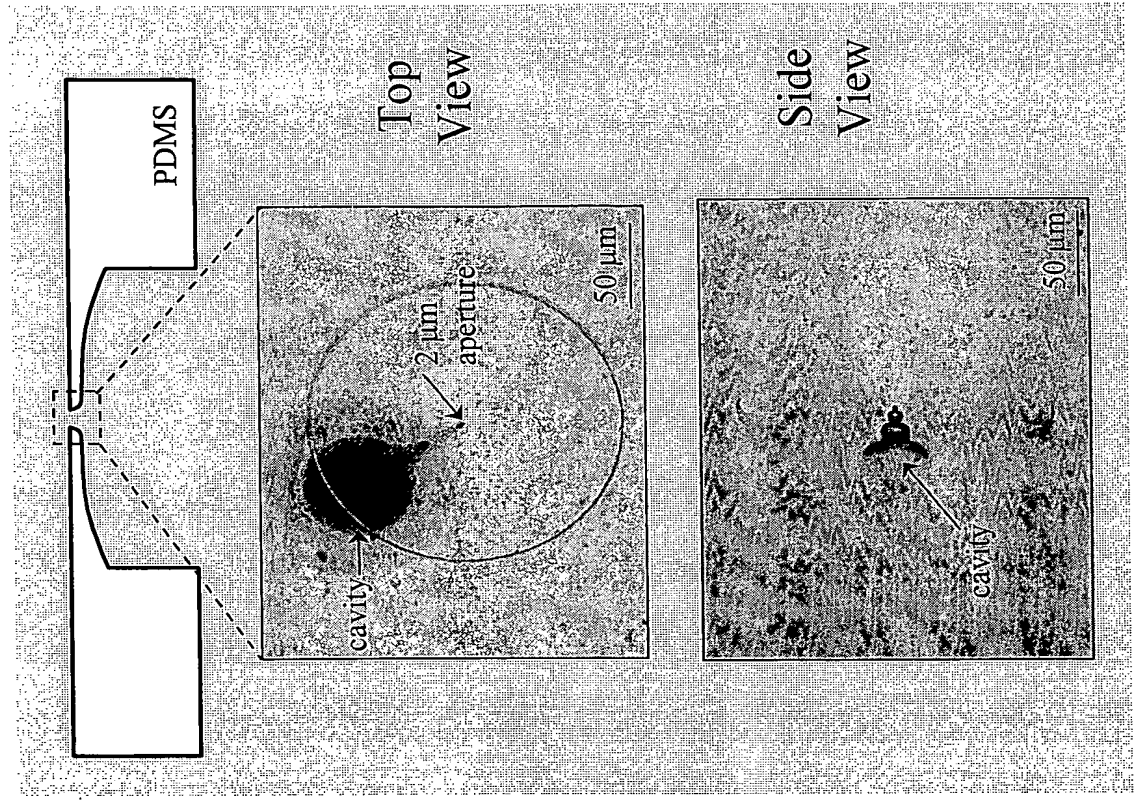


Figure 15

